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DIALOG(R)File 5:BIOSIS PREVIEWS(R)
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4222582 BIOSIS Number: 26074925
PURIFICATION OF PYRO PHOSPHATE FRUCTOSE 6 PHOSPHATE PHOSPHO TRANSFERASE
FROM GERMINATING CASTOR-BEAN ENDOSPERM
KOMBRINK E; KRUGER N J; BEEVERS H
BIOLOGY DEPT., UNIVERSITY OF CALIFORNIA, SANTA CRUZ, CALIF. 95064.
ANNUAL MEETING OF THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS, FORT
COLLINS, COLO., USA, AUG. 7-11, 1983. PLANT PHYSIOL (BETHESDA) 72 (SUPPL.
1). 1983. 124. CODEN: PLPHA
Language: ENGLISH

-14- (BIOTECH)
AN - 89-04731
CL - L (En) J1 K1
TI - Purification and preliminary characterization of
sucrose-phosphate-synthase using monoclonal antibodies
ST - monoclonal antibody production and hybridoma construction
AU - Walker J L; +Hucer S C
LO - U.S. Dept. Agriculture, Agricultural Research Service and
Departments of Crop Science and Botany, North Carolina State
University, Raleigh, North Carolina 27695-7631, USA.
JL - PLPHAY; Plant Physiol.; (1989) 89, 2, 518-24
IW - spinach sucrose-phosphate-synthase purification,
characterization, monoclonal antibody prep., hybridoma
construction
IW - mammal cell culture plant enzyme EC-2.4.1.14
AB - Monoclonal antibodies were prepared against spinach (*Spinacia*
oleracea) sucrose-phosphate-synthase (EC-2.4.1.14). Antigen in
Freund's complete adjuvant was injected i.m. into female BALB/c
mice. After 5 wk, mice were injected with antigen in Freund's
incomplete adjuvant. Sera from 2 mice neutralized spinach
sucrose-phosphate-synthase activity and bound to
sucrose-phosphate-synthase epitopes in an ELISA. A final
injection was given 4 days after the booster injection and spleen
cells were fused with P3X-derived mouse myeloma cells using the
method of Galfre and Milstein. The hybridomas produced were
screened for monoclonal antibody production in an ELISA and
positive clones were recloned by limiting dilution and expanded
into 500 ml cultures. 3 Hybridomas reacted specifically with
spinach leaf sucrose-phosphate-synthase and the monoclonal
antibodies produced by them facilitated the purification of this
enzyme by immunoprecipitation. The enzyme was characterized and
was composed of a tetramer of mol.wt. 480,000 and had specific
activity of 150 U/mg protein at pH 7.5 and 25 deg. (7 ref)

Leung, L; Lee, Y-M; Greenberg, E; Esch, K; Boyaln, S; Preiss, J;

J. Bacteriology 167: 82-88 1986

Cloning and expression of the Escherichia coli glaC gene from a mutant containing an ADPglucose pyrophosphorylase with altered allosteric properties

Barley DNA for waxy locus encoding starch synthase (EC 2.4.1.11)

starch synthase; waxy locus.

Hordeum vulgare (barley)

Eukaryota; Plantae; Embryobionta; Magnoliophyta; Liliopsida;
Commelinidae; Cyperales; Poaceae.

Zohde W.;

Submitted (21-JUN-1988) to the EMBL/GenBank/DDBJ databases.

Zohde W., Max Planck Institute, Erwin Baur Institut, D-5000 Köln
30, FRG.

Rhode W., Becker D., Salamini F.;

"Structural analysis of the waxy locus from *Hordeum vulgare*";

Nucleic Acids Res. 16:7185-7185(1988).

Marana C., Garcia-Olmedo F., Carbonero P.;
"Linked sucrose synthase genes in group-7 chromosomes in hexaploid
wheat (*Triticum aestivum* L.)";
Gene 63:253-260(1988).

Yeast SUC5 gene 5' region

glycoprotein; invertase; SUC5 gene.

Saccharomyces cerevisiae (yeast)

Eukaryota; Plantae; Thallobionta; Eumycota; Hemiascomycetes;

Endomycetales; Saccharomycetaceae.

[1]

1-971

MEDLINE; 88216256.

Hohmann S., Gozalbo D.;

"Structural analysis of the 5' regions of yeast SUC genes revealed analogous palindromes in SUC, MAL and GAL";

Mol. Gen. Genet. 211:446-454(1988).

Yeast suc7 gene 5' region for invertase

/ enhancer; invertase; regulatory region; signal peptide.

Saccharomyces cerevisiae (yeast)

Eukaryota; Plantae; Thallobionta; Eumycota; Hemiascomycetes;

Endomycetales; Saccharomycetaceae.

[1]

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MEDLINE; 86016075.

Sarokin L., Carlson M.;

"Comparison of two yeast invertase genes: conservation of the upstream regulatory region";

Nucleic Acids Res. 13:6089-6103(1985).

Rat L-PK gene for L-type pyruvate kinase

Cognet M., Lone Y.C., Vaulont S., Kahn A., Marie J.;
"Structure of the Rat L-type Pyruvate Kinase Gene";
J. Mol. Biol. 196:11-25(1987).

Chicken pyruvate kinase gene, exons 9 and 10.

Gallus gallus (chicken)
Eukaryota; Animalia; Metazoa; Chordata; Vertebrata; Aves;
Neornithes; Neognathae; Galliformes; Phasianidae.

[1]
1-1607
MEDLINE; 85099332.
Lanberg N., Gilbert W.;
"Intron/exon structure of the chicken pyruvate kinase gene";
Cell 40:81-90(1985).